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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------------|
| 10/647,364 | 08/25/2003 | Paul Richard Blais | H-732-0-US | 2123 |
| 24132 7590 05/30/2007 HUSKY INJECTION MOLDING SYSTEMS, LTD CO/AMC INTELLECTUAL PROPERTY GRP 500 QUEEN ST. SOUTH BOLTON, ON L7E 5S5 CANADA | | | EXAMINER KIM, CHRISTOPHER S | |
| | | | ART UNIT 3752 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,364

Applicant(s)

BLAIS, PAUL RICHARD

Examiner

Christopher S. Kim

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-69 is/are pending in the application.
- 4a) Of the above claim(s) 49-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 58-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 8, 2007 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Applicant's election without traverse of Group II in the reply filed on March 8, 2007 is acknowledged.
4. Claims 49-57 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 8, 2007.
5. Applicant's election of Species A, figure 1 in the reply filed on May 4, 2005 remains in effect.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “welded” recited in claim 58, the “mold” recited in claim 58, the “heater” recited in claim 63 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 59-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 60 recites the limitation "said first central bore" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

The term "proximate" in claims 59, 62 and 65 is a relative term which renders the claims indefinite. The term "proximate" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is uncertain what distance is being defined by the claims.

Claim 64 recites the limitation "said second end region of said central bore" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

9. Claims 58-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarzkopf (5,573,185).

First reading of Schwarzkopf.

Regarding claims 58-61, Schwarzkopf discloses a nozzle tip comprising:

a tip retainer 7 comprising:

a first end region (upstream end);

a second end region (at 12);

a central bore;

a seal ring 9;

a weld 12.

Schwarzkopf does not disclose that seal ring 9 comprises a material having a lower thermal conductivity than the tip retainer 7. Various materials having different thermal conductivity are well known in the art. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have made the seal ring 9 of Schwarzkopf with a thermal conductivity lower than the tip retainer 7 for heat insulation, ease in fabrication, prevent corrosion, etc.

Second reading of Schwarzkopf.

Regarding claims 58-63, Schwarzkopf discloses a nozzle tip comprising:

a tip retainer 1 comprising:

a first end region 2;

a second end region (portion downstream of 3);

a central bore 5;

a seal ring 9;

a weld 13;

a circumferential groove (space accommodating heater 6;

a heater 6;

a tip insert 4

Schwarzkopf does not disclose that seal ring 9 comprises a material having a lower thermal conductivity than the tip retainer 1. Various materials having different thermal conductivity are well known in the art. It would have been obvious to a person

having ordinary skill in the art at the time of the invention to have made the seal ring 9 of Schwarzkopf with a thermal conductivity lower than the tip retainer 1 for heat insulation, ease in fabrication, prevent corrosion, etc.

10. Claims 58-62, 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinehr et al. (4,714,045) in view of Moakes et al. (5,947,143).

Reinehr discloses a nozzle tip comprising:

a tip retainer (element upstream of perforated ring 8);

a seal ring (element downstream of perforated ring 8).

Reinehr differs from what is being claimed in the seal ring having a lower thermal conductivity than the tip retainer and the seal ring being welded to the tip retainer.

Various materials having different thermal conductivity are well known in the art. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have made the seal ring of Moakes with a thermal conductivity lower than the tip retainer for heat insulation, ease in fabrication, prevent corrosion, etc.

Moakes teaches, in column 6, lines 1-13, the interchangeability of fasteners and welds. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have replaced the fastening means of Reinehr with welds as taught by Moakes for simplicity and permanence.

Response to Arguments

11. Applicant's arguments filed August 22, 2006 have been fully considered but they are not persuasive.

Applicant argues that Schwarzkopf's ring is not configured to seal against at least a portion of a mold. The "mold" is not a positively recited limitation. The claims merely require the ring to be "configured" to seal against a mold. Schwarzkopf's ring is "configured" and has the capability of sealing against a mold.

Applicant argues that Schwarzkopf is not "oriented substantially radially." See Schwarzkopf figure 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Christopher S. Kim
Primary Examiner
Art Unit 3752

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